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Sandeep Relan

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EXAMINER

PENG, FRED H

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,183

Applicant(s)

RELAN ET AL.

Examiner

Fred Peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 8-10, 13, 18, 20, 22-26, 29, 34, 36, 50, 59-60 and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Lawler et al (US 5,758,259).

Regarding Claims 1 and 50, Lawler discloses a multimedia distribution network (FIG.1) comprising a plurality of set-top-boxes (STBs) (20) adapted to request a multimedia channel, the network comprising:

a content server (202a, 202b);

a distribution unit (210, 212); and

a use meter (202a), the use meter is adapted to monitor channel requests and evaluate information associated with the channel requests to determine viewing habits and subscriber interests of viewers for each of the plurality of STBs (FIG.5; Col 7 lines 35-61; Col 10 lines 45-50).

Regarding Claim 2, Lawler further discloses the content server is adapted to receive and manage a plurality of multimedia transmissions from at least one satellite receiver, the plurality of multimedia transmissions each comprising a plurality of multimedia channels (Col 11 lines 12-17).

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Regarding Claims 3 and 4, Lawler further discloses the distribution unit is adapted to independently transmit on- demand a requested multimedia channel and an associated requested corresponding bandwidth to each of the plurality of STBs (Col 10 lines 53-58).

Regarding Claim 8, Lawler further discloses the distribution unit is adapted to communicate with each of the plurality of STBs via one of a wire or wirelessly (Col 3 lines 53-61), the distribution unit comprises a plurality of transmission heads (FIG.1, elements 214, 210, 204), each of the transmission heads comprising at least one of mechanical, electrical, and electronic switches and relays (208, 212) adapted to maintain continuous communication with each of the STBs at a plurality of end-user locations.

Regarding Claim 9, Lawler further discloses the distribution unit is adapted to communicate with each of the plurality of STBs via one of a wireless receiver, a wired receiver, an optical receiver, a wireless transmitter, an optical transmitter, and a wired transmitter (FIG.1, elements 210, 218).

Regarding Claim 10, Lawler further discloses a subscriber database memory storing subscriber information for each of a plurality of end-user subscribers, the subscriber database memory comprising at least one of a listing of channels subscribed, STB identification information, subscriber spending limits, subscriber modifiable information, and subscriber identity information for authentication (FIG.5, element 126).

Regarding Claims 13, 29 and 59, Lawler further discloses multimedia information is communicated to the STB via one of a cable, an optical fiber, and wirelessly (Col 3 lines 53-62).

Regarding Claims 18, 34 and 60, Lawler further discloses a subscriber database stores previous subscriber information and settings for subscribers not currently subscribed (FIG.6,

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element 142; previously viewed old program information) to a multimedia information package offered by the network (FIG.6, element 146; offer new programming package).

Regarding Claims 20, 36 and 62, Lawler further discloses the content server is adapted to select and transmit advertisements targeted based upon a user profile stored in the subscriber database, wherein targeted advertisements comprise advertisements corresponding to at least one of a subscriber personal information, a subscriber employment information, a subscriber channel viewing habits, and determined subscriber interests (FIG.6, FIG.3B; suggested programming, like national preference, is advertisements).

Regarding Claim 22, Lawler discloses a set-top-box (STB) (FIG.2) adapted to request a multimedia channel from a multimedia distribution network, the STB comprising:

- a processor (66) for processing and managing at least one of channel requests (FIG.5, element 124), bandwidth requested, and multimedia channel information;

- an audio decoder (74; inherent with video) for decoding audio information received via an encoded multimedia channel transmission;

- a video decoder (74) for decoding video information received via an encoded multimedia channel transmission;

- a data decoder (62b) for decoding data from one of the network and the Internet;

- a transmitter (62c) for transmitting channel requests to the multimedia distribution network; and

- a receiver (62c) for receiving multimedia channel information and messages associated with the channel requests.

Regarding Claim 23, Lawler further discloses an antenna for wirelessly communicating with a multimedia distribution unit in the multimedia distribution network (Col 3 lines 53-59; satellite is wireless communication).

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Regarding Claim 24, Lawler further discloses an antenna for wired connection for communicating with a multimedia distribution unit in the multimedia distribution network (Col 3 lines 10-13; Cable is wired connection).

Regarding Claim 25, Lawler further discloses a combination audio/video decoder unit (74, audio is inherently included with video decoder).

Regarding Claim 26, Lawler further discloses a combination of transmitter/receiver unit (62c, network interface includes both transmission and receiving).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-7, 38-43 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawler et al (US 5,758,259) in view of Eldering et al (US 2007/0157231).

Regarding Claims 5 and 6, Lawler further discloses a use memory, the use memory is adapted to store monitored channel request information corresponding to each of the plurality of STBs for evaluation (Col 7 lines 62-67), the use memory is also adapted to record a length of viewing time corresponding to each channel request (Col 7 lines 47-50; viewing more than a minimum threshold amount of time suggesting record a length of viewing time).

Lawler is silent about the use memory is also adapted to record the bandwidth consumed corresponding to each respective channel request.

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In an analogous art, Eldering discloses record the bandwidth consumed corresponding to each respective channel request (Para 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include record the bandwidth consumed corresponding to each respective channel request, as taught by Eldering to make a better use of bandwidth.

Regarding Claims 7 and 40, Lawler further discloses the user logs comprising at least one of subject matter associated with the viewed programs (FIG.5, element 130).

Regarding Claim 38, Lawler discloses a method of determining viewing habits of a plurality multimedia channel subscribers, the method comprising:

monitoring multimedia usage by each of the plurality of multimedia channel subscribers , wherein monitoring multimedia usage comprises:

monitoring channel requests received from each of a plurality of set-top-boxes (STBs) (FIG.5, element 124);

monitoring multimedia channel information transmitted to each of the plurality of multimedia channel subscribers and corresponding STBs (FIG.5, element 124);

storing monitored multimedia channel information (FIG.5, element 122); and

analyzing the monitored multimedia channel information to determine subscriber viewing habits (FIG.5, element 130).

Lawler is silent about monitoring channel transmission beginning and ending times; monitoring bandwidth consumed for each channel viewed.

In an analogous art, Eldering discloses monitoring channel transmission beginning and ending times (Para 55) and bandwidth consumed for each channel viewed (Para 18).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include broadcast time and consumed bandwidth, as taught by Eldering to create more accurate user profile data.

Regarding Claim 39, Lawler further discloses storing monitored multimedia channel information comprises creating a plurality of user logs of subscriber viewing activity in a use memory, wherein each of the plurality of user logs corresponds to one of a subscriber and multiple viewers at each end-user location (FIG.5, element 122; Col 7 lines 62-67).

Regarding Claim 41, Lawler further discloses all channel requests for a particular channel and a particular subscriber from each of the plurality of user logs is combined to create an aggregate entry stored in one of a corresponding channel log (FIG.3B; House Preference) and a corresponding subscriber log (FIG.3B; Personal Preference).

Regarding Claim 42, Lawler further discloses comparing the monitored multimedia channel information against a program listing for channels and times to determine viewing habits of end-user subscribers, wherein determining viewing habits of end-user subscribers comprises determining programs and corresponding subject matter of the programs subscribers request and view (Col 7 lines 54-67).

Regarding Claim 43, Lawler further discloses analyzing channel requests and corresponding multimedia channel transmission information to determine program information and end-user viewer information (Col 7 lines 36-47, 54-56).

Regarding Claim 51, Lawler further discloses reducing total bandwidth transmitted to each subscriber by transmitting multimedia channel information selected by each subscriber

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independently (Col 10 lines 53-58; requested video demand bandwidth can vary from clip, less bandwidth to full motion, more bandwidth).

Regarding Claim 52, Lawler further discloses increasing transmitted multimedia channel quality by increasing bandwidth transmitted for each requested multimedia channel selected by each subscriber independently (Col 10 lines 53-58; full motion with better quality by increasing bandwidth).

Regarding Claim 53, Lawler further discloses target marketing each end-user subscriber with product information based upon analysis of end-user subscriber viewing habits and determination of end-user subscriber interests, wherein the product information may be displayed on the end-user display apparatus (FIG.3B; Critic preference Star Wars is a product based on user's preference).

5. Claims 11-12, 27-28 and 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawler et al (US 5,758,259) in view of Ellis et al (US 2006/0140584).

Regarding Claims 11, 27 and 57, Lawler is silent about each STB is adapted to permit a subscriber end-user to unsubscribe to subscribed programming channels by selecting a corresponding response from an interactive menu displayed by the STB on an end-user display apparatus, wherein the selected response is transmitted to a network component for processing.

In an analogous art, Ellis discloses each STB is adapted to permit a subscriber end-user to unsubscribe to subscribed programming channels by selecting a corresponding response from an interactive menu displayed by the STB on an end-user display apparatus, wherein the selected response is transmitted to a network component for processing (Para 333 lines 10-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include a permission for a user to cancel an order, as taught by Ellis to provide convenient service for the users.

Regarding Claims 12, 28 and 58, Lawler is silent about each STB is adapted to permit a subscriber end-user to view information stored in a subscriber memory database corresponding to the subscriber end-user, and the STB is adapted to permit the subscriber end-user to view at least one of end-user preferences, subscription status, collected statistics, and viewing habits on an end-user display apparatus on-demand, wherein the information is transmitted to the STB from a network component.

In an analogous art, Ellis discloses each STB is adapted to permit a subscriber end-user to unsubscribe to view information stored in a subscriber memory database corresponding to the subscriber end-user, and the STB is adapted to permit the subscriber end-user to view at least one of end-user preferences, subscription status, collected statistics, and viewing habits on an end-user display apparatus on-demand, wherein the information is transmitted to the STB from a network component (FIG.43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include a permission for a user to view subscription status, as taught by Ellis to provide convenient service for the users.

6. Claims 14-17, 30-33 and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawler et al (US 5,758,259) in view of Gill et al (US 2002/0083451) and Shioda et al (US 6,484,318).

Regarding Claims 14, 30, 44 and 45, Lawler is silent about the STB is adapted to detect whether an end-user display apparatus is one of active and inactive, the STB is also adapted to transmit a message to the network, the message indicating whether the display apparatus is one

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of active and inactive, wherein multimedia transmission is terminated when the display apparatus is determined to be inactive.

In an analogous art, Gill discloses STB is adapted to detect whether an end-user display apparatus is one of active and inactive, the STB is also adapted to transmit a message to the network, the message indicating whether the display apparatus is one of active and inactive (Para 66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include a detection of an inactive display apparatus, as taught by Gill as part of viewers monitoring process.

Lawler and Gill are silent about wherein multimedia transmission is terminated when the display apparatus is determined to be inactive.

In an analogous art, Shioda discloses termination of transmission line if the line is not used (Col 16 lines 38-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Lawler and Gill to include termination of transmission line if the line is not used, as taught by Shioda to save the transmission capacity for other users.

Regarding Claims 15, 31 and 46, Gill further discloses detecting whether the end-user display apparatus is one of active and inactive comprises evaluating at least one component of the end-user display apparatus by the STB (Para 76, issue an on/off command to turn-off power).

Regarding Claims 16, 32, 48 and 49, Lawler is silent about the STB is adapted to determine whether an end-user is physically viewing transmitted multimedia information, wherein upon determining that the end-user is not physically viewing the transmitted multimedia information, the STB transmits a message to the network indicating that the end-user is not

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physically viewing the multimedia information, wherein transmission of multimedia information is terminated.

In an analogous art, Gill discloses STB is adapted to determine whether an end-user is physically viewing transmitted multimedia information, wherein upon determining that the end-user is not physically viewing the transmitted multimedia information, the STB transmits a message to the network indicating that the end-user is not physically viewing the multimedia information (Para 76).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include a detection of viewer's actual viewing, as taught by Gill to provide more accurate user's profile data.

Lawler and Gill are silent about termination of transmission when viewer is not actually watching the program.

In an analogous art, Shioda discloses termination of transmission line if the line is not used (Col 16 lines 38-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Lawler and Gill to include termination of transmission line if the line is not used, as taught by Shioda to save the transmission capacity for other users.

Regarding Claims 17, 33 and 47, Gill further discloses determining whether an end-user is physically viewing the transmitted multimedia information comprises prompting the end-user to interact with the STB (Para 76).

7. Claims 19, 35 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawler et al (US 5,758,259) in view of Hoang (US 2003/0051249).

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Regarding Claims 19, 35 and 61, Lawler discloses a subscriber database stores user preferences for value added services (Col 5 lines 8-16).

Lawler is silent about different service levels to determine a different amount of advertisements to be displayed.

In an analogous art, Hoang discloses different service levels to determine a different amount of advertisements to be displayed (Para 72).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include different service levels to determine a different amount of advertisements to be displayed, as taught by Hoang to add additional value for advertisement reference.

8. Claims 21, 37 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawler et al (US 5,758,259) in view of Ellis (US 2007/0124763).

Regarding Claims 21, 37 and 63, Lawler is silent about the content server is adapted to transmit a message to the STB informing an end-user that a selected channel is unavailable for access due to one of unavailability of the requested channel due to the requested channel being restricted channel to select end-users.

In an analogous art, Ellis discloses the content server is adapted to transmit a message to the STB informing an end-user that a selected channel is unavailable for access due to one of unavailability of the requested channel due to the requested channel being restricted channel to select end-users (FIG.11; Para 84; message is created for channel lock based on parental control).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lawler's system to include a message for channel restriction because of program ratings, as taught by Ellis to provide a more user friendly interface.

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9. Claims 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawler et al (US 5,758,259) and Eldering et al (US 2007/0157231) as applied to claim 38 above, and further in view of Eldering et al (US 2007/0240181).

Regarding Claim 54, Lawler and Eldering et al (US 2007/0157231) are silent about determining by analysis of subscriber viewing habits whether a subscriber is channel surfing.

In an analogous art, Eldering et al (US 2007/0240181) discloses determining by analysis of subscriber viewing habits whether a subscriber is channel surfing (Para 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method of Lawler and first Eldering to include determining by analysis of subscriber viewing habits whether a subscriber is channel surfing, as taught by second Eldering to filter out irrelevant data like surfing.

Regarding Claim 55, the second Eldering further discloses subscriber channel surfing is determined by:

counting channel requests transmitted in a predetermined amount of time; and

comparing the counted number of channel requests received in a predetermined amount of time with a predetermined number of channel requests, wherein if the counted number of channel requests is greater than the predetermined number of channel requests, then the subscriber is determined to be channel surfing, wherein a channel surfing entry in a user log is created, and wherein a channel surfing entry in the user log comprises at least starting and ending times of a channel surfing event (Para 10).

Regarding Claim 56, the second Eldering further discloses subscriber channel surfing is determined by:

recording a length of viewing time associated with each channel request; and

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comparing the length of viewing time with a predetermined time, wherein if the length of viewing time is less than the predetermined time, then the subscriber is determined to be channel surfing, wherein a channel surfing entry in a user log is created, and wherein a channel surfing entry in the user log comprises at least starting and ending times of a channel surfing event (Para 10).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Peng whose telephone number is (571) 270-1147. The examiner can normally be reached on Monday-Friday 09:00-18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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